

IN THE CLAIMS:

Kindly rewrite Claims 1-421, as follows:

1-388. (Cancelled)

389. (Currently Amended) A wafer boat preform consisting of one of the following boat fabrication materials:

silicon,

silicon compound comprising at least one silicon atom and in which silicon is a majority,

silicon and germanium,

$\text{Si}_{x1}\text{Ge}_{1-x1}$ solid solution, wherein $0 \leq X1 \leq 1$,

silicon and silicon carbide $\text{Si}_{x2}(\text{SiC})_{1-x2}$, wherein the silicon is a majority,

silicon and silicon dioxide $\text{Si}_{x3}(\text{SiO}_2)_{1-x3}$, wherein $0 < X3 < 1$,

silicon and a ceramic and in which silicon is the majority material,

silicon and an oxide $\text{Si}_{x4}(\text{Oxide})_{1-x4}$, wherein $0 \leq X4 \leq 1$,

silicon and a metal $\text{Si}_{x5}\text{M}_{1-x5}$, wherein $0 \leq X5 \leq 1$,

silicon and a metal alloy $\text{Si}_{x6}\text{A}_{1-x6}$, wherein $0 \leq X5 \leq 1$, and

combinations thereof, wherein the wafer boat preform consists of one of a tube, a rod, and a plate.

390. (Previously Presented) The process of claim 393, wherein forming comprises:

pressing the boat fabrication material within a die having a desired shape and form;

sintering or melting the pressed boat fabrication material;

cooling down the sintered boat fabrication material at a desired cool-down regime; and

machining the cooled boat fabrication material to a desired tolerance.

391. (Previously Presented) The wafer boat preform of claim 389, wherein the boat fabrication material is powder, and organic compounds, inorganic compounds, or both, are used with the boat fabrication material for shaping purposes.

392. (Previously Presented) The process of claim 390, wherein melting or sintering is preceded by at least one of purging and purifying.

393. (Currently Amended) A process for fabrication of water boat preforms, comprising: providing a boat fabrication material selected from the group consisting of one of the following materials:

silicon,

silicon and germanium,

$\text{Si}_{x1}\text{Ge}_{1-x1}$ solid solution, wherein $0 \leq x1 \leq 1$,

silicon and silicon carbide $\text{Si}_{x2}(\text{SiC})_{1-x2}$, wherein the silicon is a majority of the boat fabrication material,

silicon and silicon dioxide $\text{Si}_{x3}(\text{SiO}_2)_{1-x3}$, wherein $0 < x3 < 1$,

silicon and a ceramic and in which silicon is the majority material,

silicon and an oxide $\text{Si}_{x4}(\text{Oxide})_{1-x4}$, wherein $0 \leq x4 \leq 1$,

silicon and a metal $\text{Si}_{x5}\text{M}_{1-x5}$, wherein $0 \leq x5 \leq 1$,

silicon and a metal alloy $\text{Si}_{x6}\text{A}_{1-x6}$, wherein $0 \leq x5 \leq 1$, and

combinations thereof; and

forming a wafer boat preform consisting of the boat fabrication material, and consisting of one of a tube, a rod, and a plate.

394. (Previously Presented) The process of claim 393, wherein forming comprises extruding the boat fabrication material within a die having a desired shape and form;

sintering the extruded boat fabrication material;
cooling down the sintered boat fabrication material at a desired cool-down regime; and
machining the cooled boat fabrication material to a desired tolerance.

395. (Previously Presented) The process of claim 393, wherein the boat fabrication material is powder.

396. (Previously Presented) The process of claim 393, wherein the boat fabrication material is powder, and further comprising organic materials, inorganic materials, or both.

397. (Previously Presented) The process of claim 390, wherein pressing comprises pressing under reduced or high pressure of inert or reactive gas.

398. (Previously Presented) The process of claim 397, wherein the reactive gas comprises a mixture of atomic or charged molecular state gas, optionally plasma gas, and a neutral inert or reactive gas.

399. (Currently Amended) A process for fabrication of a member-wafer boat having the a shape consisting of one of a tube, a plate, ~~or~~ and a rod, the process comprising:

providing a material selected from the group consisting of

silicon,

silicon and germanium,

$\text{Si}_{x1}\text{Ge}_{1-x1}$ solid solution, wherein $0 \leq x1 \leq 1$,

silicon and silicon carbide $\text{Si}_{x2}(\text{SiC})_{1-x2}$, wherein silicon is a majority,

silicon and silicon dioxide $\text{Si}_{x3}(\text{SiO}_2)_{1-x3}$, wherein $0 < x3 < 1$,

silicon and a ceramic and in which silicon is the majority material,

silicon and an oxide $\text{Si}_{x4}(\text{Oxide})_{1-x4}$, wherein $0 \leq x4 \leq 1$,

silicon and a metal $\text{Si}_{x5}\text{M}_{1-x5}$, wherein $0 \leq x5 \leq 1$,

silicon and a metal alloy $\text{Si}_{x6}\text{A}_{1-x6}$, wherein $0 \leq x5 \leq 1$, and

combinations thereof; and

forming a wafer boat consisting of one of a tube, a plate, ~~or~~ and a rod consisting of the material.

400. (Previously Presented) The process of claim 399, further comprising:

heating and melting or sintering the material, preceded with molding the material in a mold having a desired shape and form; or

heating and melting or sintering the material, transferring the material to a mold, solidifying the material, cooling down the solidified material at a desired cool-down regime, removing the mold, machining the cooled down material to a desired tolerance, and sintering the cooled down material.

401. (Previously Presented) The process of claim 399, wherein the material is powder and further comprises organic materials or inorganic materials.

402. (Previously Presented) The process of claim 399, wherein melting comprises melting in a vacuum chamber.

403. (Previously Presented) The process of claim 400, wherein melting or sintering comprises melting or sintering under reduced or high pressure of inert and reactive gas.

404. (Previously Presented) The process of claim 400, further comprising:
at least one of purging and purifying, before said melting or sintering.

405. (cancelled)

406. (Currently Amended) The process of ~~claim 405~~claim 399, further comprising:

cutting the member in two along medial lines

forming openings in cylindrical walls of said member; and

coating and fusing a depositing material on top of the member material.

407. (Currently Amended) The process of ~~claim 405~~claim 399, further comprising:

forming inward and/or outward ribs or extensions, and forming slots in the ribs or extensions; or

forming boat ends with complementary steps to permit connection of at least two boats end-to-end in an axial stack or row.

408. (Previously Presented) The process of claim 399, wherein forming comprises:

forming a chamber liner, applying the chamber liner to a process chamber, and forming a chemical vapor deposition (CVD) station with the process chamber; or

halving tubes lengthwise, optionally cutting windows in said halved tubes, slotting inward ribs or extensions in the tubes or the inner walls, and forming a vertical boat; or

halving tubes lengthwise, optionally cutting windows in said halved tubes, slotting the halved tubes, and forming a horizontal boat.

409. (Cancelled)

410. (Currently Amended) A wafer processing boat preform made by a process comprising:

selecting a silicon material from the group consisting of Si, Si and SiC wherein Si is a majority, $\text{Si}_x\text{Ge}_{1-x}$, $\text{Si}_x(\text{SiO}_2)_{1-x}$, $\text{Si}_x(\text{Oxide})_{1-x}$, $\text{Si}_x\text{M}_{1-x}$, and $\text{Si}_x\text{A}_{1-x}$, wherein M is a metal, A is a metal alloy, and $0 < x < 1$;

forming a boat preform from said silicon material into a desired shape consisting of one of a tube, a rod, and a plate, wherein forming is selected from the group consisting of

forging at a temperature T, $200^\circ\text{C} \leq T \leq 1200^\circ\text{C}$, and at a pressure of up to 1000 ton/cm²,

casting the silicon material including

melting the silicon material and

shaping the silicon material, and

extruding at a temperature T, $200^\circ\text{C} \leq T \leq 1200^\circ\text{C}$, and at a pressure of up to 1000 ton/cm², and wherein the boat perform consists of said one of the tube, the rod, and the plate.

411. (Previously Presented) A wafer processing boat according to Claim 410, wherein forming comprises forging and selecting comprises selecting $\text{Si}_x\text{Ge}_{1-x}$.

412. (Previously Presented) A wafer processing boat according to Claim 410, wherein forming comprises extruding and selecting comprises selecting $\text{Si}_x\text{Ge}_{1-x}$.

413. (Previously Presented) A wafer processing boat according to Claim 410, wherein forming comprises casting and selecting comprises selecting $\text{Si}_x\text{Ge}_{1-x}$.

414. (Previously Presented) A wafer processing boat according to Claim 410, wherein the silicon material is single crystal silicon.

415. (Previously Presented) A wafer processing boat according to Claim 410, wherein the silicon material is polycrystal silicon.

416. (Previously Presented) A wafer processing boat according to Claim 410, wherein the silicon material is granular or amorphous silicon powder.

417. (Previously Presented) A wafer processing boat according to Claim 410, wherein the silicon material is silicon powder mixed with organic and/or inorganic compounds for shaping.

418. (Previously Presented) A wafer processing boat according to Claim 410, wherein forming comprises forging in vacuum or at a reduced pressure in an inert or reactive gas atmosphere.

419. (Previously Presented) A wafer processing boat according to Claim 410, wherein forming includes utilizing a slurry of the silicon material to form the wafer processing boat.

420. (Previously Presented) A wafer processing boat according to Claim 410, wherein forming includes utilizing directional solidification of the silicon material to form the wafer processing boat.

421. (Previously Presented) A wafer processing boat according to Claim 410, wherein forming includes plasma heating the silicon material to form the wafer processing boat.